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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,695	01/05/2004	Mitsuo WATANABE	031336	1694
23850	7590	04/04/2005	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			LE, UYEN CHAU N	
			ART UNIT	PAPER NUMBER
			2876	

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EF

Office Action Summary	Application No. 10/707,695	Applicant(s) WATANABE ET AL.	
	Examiner Uyen-Chau N. Le	Art Unit 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 6 is/are allowed.
- 6) ☒ Claim(s) 1, 4-5, 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Requesting Continued Examination (RCE)

1. Receipt is acknowledged of the Requesting Continued Examination (RCE) field 08 March 2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyanagi et al (US 6,547,143) in view of Nishino (US 6,116,510).

Re claims 1 and 5: Koyanagi et al discloses a bar-code reader 20 comprising a judging unit (e.g., controller 25) that judges number of modules corresponding to a character from

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character data read from a bar-code 10, and a demodulating unit (e.g., controller 25) that, if the number of modules judged is different from a predetermined number, demodulates the character by using a demodulation-pattern table [100, 200] corresponding to the number of modules judged (col. 11, lines 14+; col. 12, lines 27+); the demodulating unit displays predetermined candidates characters on a displaying unit 34 for selection of a character by a user (figs. 3 & 7; col. 13, line 31 through col. 14, lines 54).

Koyanagi et al is silent with respect to a single demodulation-pattern table corresponding to the number of modules judged.

Nishino teaches a single modulation table to be used is selected out of a number of tables at the time of the modulating operation according to the control data or bit data (col. 11, lines 6-15).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate a single table of Nishino into the system as taught by Koyanagi et al in order to provide Koyanagi et al with a time consumption system in which only one table is used for demodulating instead of two. Furthermore, such modification would provide Koyanagi et al with a more accurate system wherein corresponds to a specific number-bit of read data, a single table specifically designed for the specific number-bit data is selected, and therefore an obvious expedient.

5. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyanagi et al as modified by Nishino as applied to claim 1 and 5 above, and further in view of Watanabe et al (US 6,357,660). The teachings of Koyanagi et al as modified by Nishino have been discussed above.

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Re claims 4 and 8: Koyanagi et al/Nishino has been discussed above but is silent with respect to a module-judgment-data outputting unit that extracts a basic frequency equivalent to a unit module of the bar code based on a signal acquired by reading the barcode and outputs module judgment data according to a point in time that is synchronized with the signal and has the basic frequency, wherein the judging unit judges the number of modules based on the module-judgment data.

Watanabe et al teaches an A/D (Analog/Digital) converter 30 executes processing for digitizing the read signal S_b by comparing the read signal S_b to a threshold value; a clock signal generator 40 generates a clock signal S_c with a specified frequency; a bar width counter 50 counts up clocks in synchronism to the clock signal S_c supplied from the clock signal generator 40, and measures, of the digitized read signals S_b , those for the black bar width B_1 , white bar width B_2 , black bar width B_3 , and white bar width B_4 each as count values (figs. 1-2C; col. 8, lines 21-35).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Watanabe et al into the system as taught by Koyanagi et al/Nishino in order to provide Koyanagi et al/Nishino with a more accurate system wherein the demodulation is based on a comparison of the number of modules/counts detected to a predetermined number/threshold value.

Allowable Subject Matter

6. Claims 2 and 6 are allowed.
7. The following is an examiner's statement of reasons for allowance:

The prior art of records to Koyanagi et al, Kawai et al, Watanabe et al and all other cited references, taken alone or in combination, fails to teach or fairly suggest the specific structure or the method a barcode reader comprising, among other things, a consecutive judging unit that judges whether the number of modules judged is judged to be different from the predetermined number consecutively for a plurality of times, wherein the demodulating unit, if the consecutive judging unit judges that the number of modules judged is judged to be different from the predetermined number consecutively for a plurality of times, does not demodulate the character as set forth in the claimed combinations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

8. Applicant's arguments with respect to claims 1, 4-5 and 8 have been considered but are moot in view of the new ground(s) of rejection.

Newly cited references to Nishino have been used in the new ground rejection to further meet the newly added limitation of the claimed invention (i.e., claims 1 and 5).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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The patent to Kawamura (JP 2002133363 A) is cited as of interest and illustrate to a similar structure of a barcode reader and method of reading barcode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen-Chau N. Le whose telephone number is 571-272-2397.

The examiner can normally be reached on Mon, Wed. and Fri. 5:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL G LEE can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Uyen-Chau N. Le

March 31, 2005